



• Specifications

| Items | Characteristics | |
|------------------------------|---|--------------------------------------|
| Temperature range | -55 to +125°C | |
| Rated voltage range | 2.5 to 25Vdc | |
| Capacitance range | 6.8 to 1,500μF | |
| Capacitance tolerance | ±20% [M] (at 20°C, 120Hz) | |
| Tangent of loss angle | Less than or equal to the value of Standard Ratings (at 20°C, 120Hz) | |
| Leakage current | Less than or equal to the value of Standard Ratings (at 20°C, after 2 minutes) | |
| ESR | Less than or equal to the value of Standard Ratings | |
| Characteristics of impedance | $Z_{+125^{\circ}\text{C}}/Z_{+20^{\circ}\text{C}} \leq 1.25, Z_{-55^{\circ}\text{C}}/Z_{+20^{\circ}\text{C}} \leq 1.25$ at 100kHz | |
| Endurance | 125°C, 1,000 hrs at rated voltage | |
| | Appearance | No significant damage |
| | Capacitance change | Within±20% of the initial value |
| | Tangent of loss angle (tanδ) | ≤150% of the initial specified value |
| | ESR(mΩ) | ≤150% of the initial specified value |
| | Leakage current | ≤The initial specified value |
| Damp Heat (Steady State) | 60°C, 90 to 95% RH, 1,000 hrs, No-applied Voltage | |
| | Appearance | No significant damage |
| | Capacitance change | Within±20% of the initial value |
| | Tangent of loss angle (tanδ) | ≤150% of the initial specified value |
| | ESR(mΩ) | ≤150% of the initial specified value |
| | Leakage current | ≤The initial specified value |
| Resistance to soldering heat | Flow method (260±5°C, 10s) | |
| | Appearance | No significant damage |
| | Capacitance change | Within±10% of the initial value |
| | Tangent of loss angle (tanδ) | ≤130% of the initial specified value |
| | ESR(mΩ) | ≤130% of the initial specified value |
| | Leakage current | ≤The initial specified value |

* In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 125°C

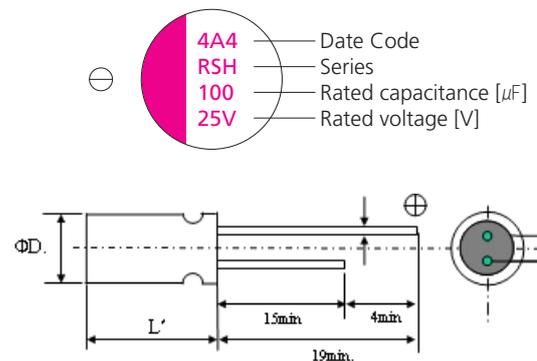
• Size List

(unit: mm)

| μF \ R V (SV) | 2.5 (2.9) | 4 (4.6) | 6.3 (7.2) | 10 (11.5) | 16 (18.4) | 2.0 (23.0) | 25 (28.7) |
|---------------|-----------|---------|-----------|-----------|-----------|------------|-----------|
| 6.8 | | | | | | | 6.3×6 |
| 10 | | | | | | | 8×7 |
| 22 | | | | | | 6.3×6 | 10×8 |
| 33 | | | | | | 8×7 | 8×11.5 |
| 39 | | | | | 6.3×6 | | |
| 47 | | | | | 6.3×6 | 8×7 | |
| 56 | | | | 6.3×6 | | 10×8 | 10×11.5 |
| 68 | | | | | | 10×8 | |
| 82 | | | 6.3×6 | | 8×7 | | |
| 100 | | 6.3×6 | 6.3×6 | | 8×7 | 10×8 | 8×11.5 |
| 120 | | | | 8×7 | | 10×8 | 8×11.5 |
| 150 | | 6.3×6 | 8×7 | 8×7 | 10×8 | 10×11.5 | 10×11.5 |
| 180 | | | | | 8×11.5 | | |
| 220 | | 8×7 | 8×7 | | | | |
| 270 | | | | 10×8 | | | |
| 330 | | 8×7 | 10×8 | 8×11.5 | 10×11.5 | | |
| 470 | | 10×8 | 8×11.5 | | 10×11.5 | | |
| 560 | | 8×11.5 | | 10×11.5 | | | |
| 680 | 8×11.5 | 10×8 | | | | | |
| 820 | | | 10×11.5 | | | | |
| 1000 | | | 10×11.5 | | | | |
| 1200 | | 10×11.5 | | | | | |
| 1500 | 10×11.5 | | | | | | |

RV: Rated Voltage [V] SV: Surge Voltage [V] (at room temperature)

• Marking and Dimensions



(unit: mm)

| Size | ØD±0.5 | L | L' | P±0.5 | Ød |
|----------|--------|------|-----------|-------|------|
| 6.3×6 | 6.3 | 6.0 | L max. | 2.5 | 0.45 |
| 8×7 | 8.0 | 7.0 | | 3.5 | 0.45 |
| 10×8 | 10.0 | 8.0 | | 5.0 | 0.60 |
| 6.3×11.5 | 6.3 | 11.5 | L+1.0max. | 2.5 | 0.50 |
| 8×11.5 | 8.0 | 11.5 | | 3.5 | 0.60 |
| 10×11.5 | 10.0 | 11.5 | | 5.0 | 0.60 |

• Standard Ratings

| Rated Voltage [Vdc] | Rated Capacitance [μF] | Size ØD x L [mm] | ESR (20°C, 100kHz) [mΩ] [max.] | Rated Ripple Current (100kHz)[mArms] | | Tangent of Loss Angel [max.] | Leakage Current [μA, max.] | Part Number |
|---------------------|------------------------|------------------|--------------------------------|--------------------------------------|----------------|------------------------------|----------------------------|--------------|
| | | | | -55 to +105°C | +105 to +125°C | | | |
| 2.5 | 680 | 8 x 11.5 | 13 | 4520 | 1430 | 0.10 | 340 | 2RSH680MD11 |
| | 1500 | 10 x 11.5 | 13 | 5440 | 1721 | 0.10 | 750 | 2RSH1500ME11 |
| 4 | 100 | 6.3 x 6 | 40 | 1810 | 572 | 0.10 | 200 | 4RSH100MC6 |
| | 150 | 6.3 x 6 | 40 | 1810 | 572 | 0.10 | 300 | 4RSH150MC6 |
| | 220 | 8 x 7 | 35 | 2560 | 810 | 0.10 | 440 | 4RSH220MD7 |
| | 330 | 8 x 7 | 35 | 2560 | 810 | 0.10 | 660 | 4RSH330MD7 |
| | 470 | 10 x 8 | 25 | 3700 | 1170 | 0.10 | 376 | 4RSH470ME8 |
| | 560 | 8 x 11.5 | 13 | 4520 | 1430 | 0.10 | 448 | 4RSH560MD11 |
| | 680 | 10 x 8 | 25 | 3700 | 1170 | 0.10 | 544 | 4RSH680ME8 |
| | 1200 | 10 x 11.5 | 13 | 5440 | 1721 | 0.10 | 960 | 4RSH1200ME11 |
| 6.3 | 82 | 6.3 x 6 | 45 | 1700 | 537 | 0.10 | 258 | 6RSH82MC6 |
| | 100 | 6.3 x 6 | 40 | 1810 | 572 | 0.10 | 315 | 6RSH100MC6 |
| | 150 | 8 x 7 | 35 | 2560 | 810 | 0.10 | 472 | 6RSH150MD7 |
| | 220 | 8 x 7 | 35 | 2560 | 810 | 0.10 | 693 | 6RSH220MD7 |
| | 330 | 10 x 8 | 25 | 3700 | 1170 | 0.10 | 416 | 6RSH330ME8 |
| | 470 | 8 x 11.5 | 15 | 4210 | 1332 | 0.10 | 592 | 6RSH470MD11 |
| | 820 | 10 x 11.5 | 12 | 5440 | 1721 | 0.10 | 1033 | 6RSH820ME11 |
| | 1000 | 10 x 11.5 | 12 | 5440 | 1721 | 0.10 | 1260 | 6RSH1000ME11 |
| 10 | 56 | 6.3 x 6 | 45 | 1700 | 537 | 0.10 | 280 | 10RSH56MC6 |
| | 120 | 8 x 7 | 35 | 2560 | 810 | 0.10 | 600 | 10RSH120MD7 |
| | 150 | 8 x 7 | 35 | 2560 | 810 | 0.10 | 750 | 10RSH150MD7 |
| | 270 | 10 x 8 | 25 | 3700 | 1170 | 0.10 | 540 | 10RSH270ME8 |
| | 330 | 8 x 11.5 | 17 | 3950 | 1250 | 0.10 | 660 | 10RSH330MD11 |
| | 560 | 10 x 11.5 | 13 | 5230 | 1655 | 0.10 | 1120 | 10RSH560ME11 |
| 16 | 39 | 6.3 x 6 | 50 | 1620 | 512 | 0.10 | 312 | 16RSH39MC6 |
| | 47 | 6.3 x 6 | 50 | 1620 | 512 | 0.10 | 376 | 16RSH47MC6 |
| | 82 | 8 x 7 | 40 | 2120 | 670 | 0.10 | 656 | 16RSH82MD7 |
| | 100 | 8 x 7 | 40 | 2120 | 670 | 0.10 | 800 | 16RSH100MD7 |
| | 150 | 10 x 8 | 30 | 3020 | 955 | 0.10 | 480 | 16RSH150ME8 |
| | 180 | 8 x 11.5 | 20 | 3640 | 1151 | 0.10 | 576 | 16RSH180MD11 |
| | 330 | 10 x 11.5 | 16 | 4720 | 1493 | 0.10 | 1056 | 16RSH330ME11 |
| | 470 | 10 x 11.5 | 16 | 4720 | 1493 | 0.10 | 1504 | 16RSH470ME11 |
| 20 | 22 | 6.3 x 6 | 60 | 1450 | 458 | 0.10 | 220 | 20RSH22MC6 |
| | 33 | 8 x 7 | 45 | 1890 | 598 | 0.10 | 330 | 20RSH33MD7 |
| | 47 | 8 x 7 | 45 | 1890 | 598 | 0.10 | 470 | 20RSH47MD7 |
| | 56 | 10 x 8 | 40 | 2400 | 759 | 0.10 | 224 | 20RSH56ME8 |
| | 68 | 10 x 8 | 40 | 2400 | 759 | 0.10 | 272 | 20RSH68ME8 |
| | 100 | 10 x 8 | 35 | 2570 | 810 | 0.10 | 400 | 20RSH100ME8 |
| | 100 | 8 x 11.5 | 24 | 3320 | 1050 | 0.10 | 400 | 20RSH100MD11 |
| | 150 | 10 x 11.5 | 20 | 4320 | 1367 | 0.10 | 600 | 20RSH150ME11 |
| 25 | 6.8 | 6.3 x 6 | 80 | 1200 | 377 | 0.10 | 170 | 25RSH6.8MC6 |
| | 10 | 8 x 7 | 60 | 1500 | 471 | 0.10 | 250 | 25RSH10MD7 |
| | 22 | 10 x 8 | 50 | 2000 | 632 | 0.10 | 275 | 25RSH22ME8 |
| | 33 | 8 x 11.5 | 30 | 2980 | 943 | 0.10 | 413 | 25RSH33MD11 |
| | 56 | 10 x 11.5 | 28 | 3800 | 1202 | 0.10 | 700 | 25RSH56ME11 |
| | 100 | 8 x 11.5 | 30 | 3320 | 1050 | 0.10 | 500 | 25RSH100MD11 |
| 150 | 10 x 11.5 | 25 | 4320 | 1367 | 0.10 | 750 | 25RSH150ME11 | |

Conductive Polymer Hybrid
Aluminum Electrolytic Capacitors
Radial Lead Type

Conductive Polymer Hybrid
Aluminum Electrolytic Capacitors
SMD Lead Type

Conductive Polymer Aluminum
Electrolytic Capacitors_Radial Lead Type

Conductive Polymer Aluminum
Electrolytic Capacitors_SMD Lead Type